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ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
12829C LANCE MISSILE NUMBER 4236, ROUND NUMBER 299 RSL (25 AUGU--ETC(U)
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METEOROLOGICAL DATA REPORT

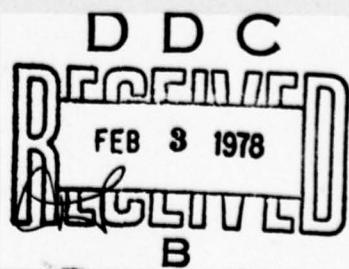
12829C LANCE
MISSILE NO. 4236, ROUND NO. 299 RSL
(25 AUGUST 1977)

BY

WSMR METEOROLOGICAL TEAM

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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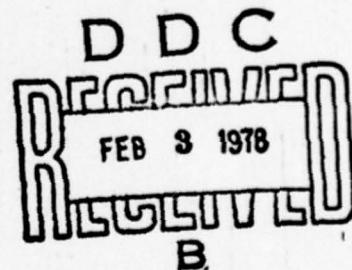
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MISSILE NO. 4236, ROUND NO. 299 RSL
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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER <i>(4) DR-944</i>	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (Text Subtitle) <i>12829C Lance Missile No 4236, Round No 299 RSL (25 August 1972)</i>	5. TYPE OF REPORT & PERIOD COVERED <i>Test data report</i>	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) <i>WSMR Meteorological Team data report.</i>	8. CONTRACT OR GRANT NUMBER(s) <i>(16) DA Task 1T6657/02D127-02</i>	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS <i>(12)</i>
9. PERFORMING ORGANIZATION NAME AND ADDRESS	11. REPORT DATE <i>September 1977</i>	
11. CONTROLLING OFFICE NAME AND ADDRESS <i>US Army Electronics Command Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico</i>	12. NUMBER OF PAGES <i>24</i>	13. SECURITY CLASS. (of this report)
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) <i>US Army Electronics Command Ft. Monmouth, New Jersey</i>	15. SECURITY CLASSIFICATION <i>UNCLASSIFIED</i>	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) <i>Approved for public release; distribution unlimited.</i>		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) <ol style="list-style-type: none">1. Ballistics2. Meteorology3. Wind		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) <p>Metorological data gathered for the launching of 12829C Lance, Missile No 4236, Round Number 299 RSL, are presented in tabular form.</p>		

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INTRODUCTION

12829C Lance, Missile Number 4236, Round Number 299 RSL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1508 HRS MDT, 25 August 1977. The scheduled launch time was 1500 HRS MDT.

DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	3,986.0	FEET/MSL
PRESSURE	877.2	MBS
TEMPERATURE	34.7	°C
RELATIVE HUMIDITY	34	%
DEW POINT	16.6	°C
DENSITY	985	GM/M ³
WIND SPEED	02	MPH
WIND DIRECTION	160	DEGREES
CLOUD COVER	1 2 1	Cu Cb Cs

TABLE I. SURFACE OBSERVATIONS AT LC-33,
1500 HRS MDT/25 AUGUST 1977.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	160	02	2100	240	7.0
100	000	0	2200	240	8.0
200	000	0	2300	230	7.0
300	025	.5	2400	210	5.0
400	350	3.5	2500	230	3.5
500	360	2.5	2600	260	2.0
600	350	1.0	2700	285	3.5
700	185	2.0	2800	265	4.5
800	180	2.5	2900	245	4.5
900	205	6.0	3000	230	4.5
1000	200	6.5	3100	240	5.5
1100	215	5.0	3200	275	3.5
1200	240	6.0	3300	305	5.5
1300	265	6.5	3400	325	7.0
1400	270	4.5	3500	215	5.5
1500	275	3.0	3600	315	3.0
1600	250	4.5	3700	315	2.5
1700	225	5.5	3800	355	1.0
1800	210	2.5	3900	045	2.0
1900	265	3.5	4000	110	2.0
2000	220	4.5	4100	170	3.5

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-33, AT 1507 HRS MDT/25 AUGUST 1977
12829C LANCE, MISSILE NO. 4236, ROUND NO. 299 RSL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,296.83 Y = 185,251.85 Z = 3,986.67

APPROXIMATELY: 300 FT. SOUTH OF LAUNCHER

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	220	3.0	6700	260	6.5
4300	225	5.5	6800	260	7.0
4400	190	4.0	6900	220	5.0
4500	170	4.5	7000	245	9.5
4600	185	5.5	7100	250	15.0
4700	170	5.0	7200	240	14.0
4800	200	4.5	7300	250	14.5
4900	200	7.5	7400	250	17.5
5000	200	6.5	7500	265	16.0
5100	195	3.0	7600	270	15.5
5200	225	2.5	7700	255	11.5
5300	245	2.5	7800	260	13.5
5400	245	1.0	7900	280	13.5
5500	230	2.0	8000	255	10.5
5600	140	1.5	8100	240	11.5
5700	265	2.5	8200	220	11.0
5800	195	1.0	8300	225	10.5
5900	235	1.0	8400	235	11.5
6000	235	2.0	8500	235	12.0
6100	240	4.5	8600	240	13.5
6200	260	3.5	8700	230	11.0
6300	235	1.5	8800	235	10.5
6400	255	2.0	8900	220	10.5
6500	240	7.0	9000	210	8.0
6600	240	5.5			

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	01	290
-20.0	03	240
-10.0	04	243
-00.00	05	245
+10.00	05	210

TABLE III. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION POLE NO. 2
 12829C LANCE, MISSILE NO. 4236, ROUND NO. 299 RSL
 LAUNCHED FROM LC-33, 1507 MDT/25 AUGUST 1977

WSTM COORDINATES: X = 485,874.93 Y = 186,012.00 H = 4,033.57 (VANE)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	CALM	CALM
-20.0	CALM	CALM
-10.0	CALM	CALM
-00.00	CALM	CALM
+10.00	CALM	CALM

TABLE IV. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 3
 12829C LANCE, MISSILE NO. 4236, ROUND NO. 299 RSL
 LAUNCHED FROM LC-33, 1507 MDT/25 AUGUST 1977

WSTM COORDINATES: X = 485,877.29 Y = 186,116.06 H = 4,063.92 (VANE)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

STATION ALTITUDE 3989.00 FEET MSL
25 AUG. 77 1450 HRS MDT
ASCENSION NO. 627

SIGNIFICANT LEVEL DATA
2370020627
WHITE SANDS
TABLE V.

GEODETIC COORDINATES
32°40'04.3 LAT DEG
106°37'03.3 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT
877.2	3989.0	34.0	33.0
850.0	4926.0	31.4	38.0
700.0	10481.6	14.0	7.1
671.3	11637.6	12.0	50.0
583.8	15415.6	3.3	53.0
526.8	18121.6	-2.0	-13.2
500.0	19475.1	-5.0	-12.6
429.3	23354.6	-11.7	-16.9
420.7	23862.3	-12.2	-20.9
400.0	25120.5	-14.7	-20.7
392.8	25570.8	-15.0	-32.8
357.8	27858.2	-20.4	-27.9
300.0	32053.4	-29.4	-39.6
262.8	35100.3	-36.7	-47.9
250.0	36226.4	-38.9	-49.5
206.3	40435.7	-50.0	-75.7
200.0	41097.7	-50.6	
150.0	47044.1	-63.9	
120.8	51274.6	-74.0	
111.3	52321.0	-77.6	
110.4	52973.7		

STATION ALTITUDE 3989.00 FEET MSL
 25 AUG. 77 1450 HRS MDT
 ASCENSION NO. 627

UPPER AIR DATA
 2370020627
 WHITE SANDS
 TABLE VI.

GEODETIC COORDINATES
 32°40.043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3989.0	877.2	34.0	15.4	33.0	987.4	685.4	•0	•0	1.000291
4006.0	876.9	34.0	15.5	33.1	987.1	685.3	14.6	•0	1.000291
4500.0	862.3	32.6	15.4	35.7	974.9	685.8	14.6	•1	1.000289
5000.0	847.8	31.2	15.3	36.3	963.0	682.3	14.6	•2	1.000286
5500.0	833.1	29.6	14.8	40.6	951.3	680.5	14.6	•3	1.000282
6000.0	818.7	28.0	14.2	42.8	939.8	678.7	14.6	•4	1.000277
6500.0	804.5	26.5	13.6	45.1	928.5	676.8	14.6	•5	1.000273
7000.0	790.6	24.9	12.9	47.3	917.4	675.0	14.6	•7	1.000268
7500.0	776.9	23.5	12.2	49.6	906.5	673.1	274.5	•8	1.000263
8000.0	763.4	21.8	11.4	51.8	895.7	671.3	246.5	2.9	1.000259
8500.0	750.2	20.2	10.6	54.1	885.1	669.4	242.3	5.0	1.000254
9000.0	737.2	18.6	9.8	56.3	874.7	667.6	241.4	7.5	1.000249
9500.0	724.4	17.1	8.9	58.6	864.4	665.7	241.9	10.4	1.000244
10000.0	711.9	15.5	8.0	60.8	854.2	663.8	242.2	13.3	1.000239
10500.0	699.5	14.0	7.0	62.8	844.2	661.9	248.2	13.9	1.000234
11000.0	687.0	13.1	4.8	57.2	832.1	660.7	255.5	14.2	1.000225
11500.0	674.7	12.2	2.6	51.5	820.1	659.5	257.2	13.0	1.000217
12000.0	662.4	11.2	1.2	50.3	808.5	658.1	253.3	10.6	1.000211
12500.0	650.2	10.0	•3	50.7	797.1	656.8	241.6	8.4	1.000207
13000.0	638.3	8.9	-7	51.1	785.8	655.4	219.1	7.4	1.000203
13500.0	626.6	7.7	-1.6	51.5	774.7	654.0	207.6	8.0	1.000199
14000.0	615.2	6.6	-2.6	51.9	763.6	652.6	205.2	9.3	1.000195
14500.0	603.9	5.4	-3.6	52.3	753.0	651.2	206.7	9.6	1.000191
15000.0	592.8	4.3	-4.5	52.7	742.4	649.8	209.3	9.7	1.000187
15500.0	581.9	3.1	-5.6	52.7	731.8	648.4	213.3	9.0	1.000183
16000.0	571.0	2.2	-7.0	50.6	720.8	647.2	222.1	8.6	1.000179
16500.0	560.3	1.2	-8.4	48.6	709.9	646.0	235.5	8.8	1.000174
17000.0	549.7	•2	-9.9	46.6	699.2	644.7	250.1	9.1	1.000170
17500.0	539.4	-8	-11.3	44.5	688.6	643.5	261.3	9.6	1.000167
18000.0	529.2	-1.6	-12.8	42.5	678.2	642.3	267.0	9.0	1.000163

STATION ALTITUDE 3989.00 FEET MSL
25 AUG. 77 1450 HRS MDT
ASCENSION NO. 627

UPPER AIR DATA
2370020627
WHITE SANDS
TABLE VI. (CONT)

GEODETIC COORDINATES
32°40.043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	WIND DATA		INDEX OF REFRACTION
					DIRECTION DEGREES TN	SPEED KNOTS	
18500.0	519.2	-2.8	-12.9	45.6	666.0	641.0	1.000161
19000.0	509.2	-3.9	-12.7	50.4	657.9	639.7	1.000159
19500.0	499.5	-5.0	-12.6	55.1	647.9	638.5	1.000157
20000.0	489.6	-5.9	-13.2	56.4	637.4	637.4	1.000154
20500.0	480.3	-6.8	-13.7	57.6	627.0	636.4	1.000151
21000.0	470.9	-7.6	-14.2	58.9	616.9	635.3	1.000148
21500.0	461.8	-8.5	-14.8	60.2	606.8	634.3	1.000146
22000.0	452.6	-9.4	-15.4	61.5	597.0	633.2	1.000143
22500.0	444.0	-10.2	-15.9	62.8	587.3	632.2	1.000141
23000.0	435.3	-11.1	-16.5	64.1	577.8	631.1	1.000138
23500.0	426.8	-11.8	-18.0	60.1	568.3	630.2	1.000135
24000.0	418.4	-12.5	-20.9	49.3	558.5	629.3	1.000131
24500.0	410.1	-13.5	-20.7	54.1	549.5	628.1	1.000129
25000.0	401.9	-14.5	-20.7	58.9	540.7	626.9	1.000127
25500.0	393.9	-15.0	-30.0	26.3	531.2	626.1	1.000121
26000.0	386.0	-16.0	-31.1	25.8	522.7	624.8	1.000119
26500.0	378.2	-17.2	-29.7	32.6	514.5	623.4	1.000118
27000.0	370.6	-18.4	-28.8	39.4	506.4	622.0	1.000116
27500.0	363.1	-19.6	-28.1	46.1	498.4	620.6	1.000115
28000.0	355.7	-20.7	-28.3	50.5	490.5	619.2	1.000113
28500.0	348.3	-21.8	-29.6	48.7	482.4	617.8	1.000111
29000.0	341.0	-22.8	-31.0	46.9	474.4	616.5	1.000108
29500.0	334.0	-23.9	-32.4	45.1	466.6	615.2	1.000106
30000.0	327.0	-25.0	-33.8	43.3	458.9	613.8	1.000104
30500.0	320.2	-26.1	-35.2	41.6	451.3	612.5	1.000102
31000.0	313.6	-27.1	-36.6	39.8	443.9	611.1	1.000101
31500.0	307.1	-28.2	-38.1	38.0	436.6	609.8	1.000099
32000.0	300.7	-29.3	-39.5	36.2	429.4	608.4	1.000097
32500.0	294.2	-30.5	-40.8	35.1	422.3	607.0	1.000095
33000.0	287.9	-31.7	-42.2	34.1	415.3	605.5	1.000093

STATION ALTITUDE 3989.00 FEET MSL
 25 AUG. 77 1450 HRS MDT
 ASCENSION NO. 627

UPPER AIR DATA
 2370020627
 WHITE SANDS
 TABLE VI. (CONT.)

GEODETIC COORDINATES
 32°40.043 LAT DEG
 106°37.033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEWPONT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES TN	WIND SPEED KNOTS	ATA SPEED KNOTS	INDEX OF REFRACTION
33500.0	281.7	-32.9 -43.5	33.2	408.4	603.9	224.5	22.4	1.000092	
34000.0	275.7	-34.1 -44.9	32.2	401.6	602.4	226.0	23.5	1.000090	
34500.0	269.7	-35.3 -46.2	31.2	395.0	600.9	226.7	24.4	1.000089	
35000.0	263.9	-36.5 -47.6	30.2	388.4	599.4	226.2	24.9	1.000087	
35500.0	258.2	-37.5 -48.5	30.4	381.6	598.1	226.7	25.6	1.000085	
36000.0	252.5	-38.5 -49.2	30.6	374.8	596.9	227.8	26.4	1.000084	
36500.0	246.9	-39.6 -50.8	29.0**	366.3	595.4	228.4	26.8	1.000082	
37000.0	241.3	-40.9 -53.1	25.3**	362.0	593.7	228.9	26.7	1.000081	
37500.0	235.9	-42.3 -55.5	21.6**	355.9	592.0	229.2	26.1	1.000079	
38000.0	230.6	-43.6 -58.1	17.9**	349.6	590.3	231.9	26.6	1.000078	
38500.0	225.4	-44.9 -61.0	14.3**	343.9	588.6	235.8	27.7	1.000077	
39000.0	220.3	-46.2 -64.3	10.6**	338.1	586.9	239.1	29.3	1.000075	
39500.0	215.3	-47.5 -63.4	6.9**	332.4	585.2	242.1	30.8	1.000074	
40000.0	210.4	-48.9 -74.6	3.2**	326.8	583.5	244.6	30.3	1.000073	
40500.0	205.7	-50.1		321.2	581.9	247.3	29.8	1.000072	
41000.0	200.9	-50.5		314.4	581.3	250.7	29.6	1.000070	
41500.0	196.1	-51.5		308.3	580.0	252.1	29.6	1.000069	
42000.0	191.5	-52.6		302.4	578.5	251.7	29.6	1.000067	
42500.0	186.9	-53.7		296.7	577.1	248.6	29.2	1.000066	
43000.0	182.4	-54.9		291.1	575.6	244.7	28.8	1.000065	
43500.0	178.1	-56.0		285.6	574.1	241.6	28.7	1.000064	
44000.0	173.8	-57.1		280.2	572.6	238.8	29.0	1.000062	
44500.0	169.6	-58.2		275.0	571.2	237.1	30.5	1.000061	
45000.0	165.6	-59.3		269.8	569.7	235.7	31.8	1.000060	
45500.0	161.6	-60.4		264.7	568.2	236.3	31.2	1.000059	
46000.0	157.3	-61.6		259.8	566.7	236.9	30.6	1.000058	
46500.0	154.0	-62.7		254.9	565.2	241.2	28.8	1.000057	
47000.0	150.3	-63.8		250.1	563.7	246.5	27.1	1.000056	
47500.0	146.5	-65.0		245.2	562.1	249.2	26.1	1.000055	
48000.0	142.8	-66.2		240.4	560.5	250.7	25.4	1.000054	

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
25 AUG. 77 1450 HRS MDT
ASCENSION NO. 627

UPPER AIR DATA
2370020627
WHITE SANDS
TABLE VI. (CONT)

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	ATA SPEED KNOTS	INDEX OF REFRACTION
48500.0	139.2	-67.4			235.7	558.8	249.5	24.5	1.000052
49000.0	135.7	-68.6			231.1	557.2	246.9	23.6	1.000051
49500.0	132.3	-69.8			226.6	555.6	243.6	23.7	1.000050
50000.0	128.9	-71.0			222.2	554.0	240.1	24.3	1.000049
50500.0	125.7	-72.2			217.8	552.3	237.6	24.2	1.000049
51000.0	122.5	-73.3			213.6	550.7	235.9	23.2	1.000048
51500.0	119.4	-74.5			209.4	549.1		1.000047	
52000.0	116.2	-75.7			205.1	547.4		1.000046	
52500.0	113.2	-76.9			200.9	545.6		1.000045	

STATION ALTITUDE 3989.00 FEET MSL
 25 AUG. 77 1450 HRS MDT
 ASCENSION NO. 627

MANDATORY LEVELS
 2370020627
 WHITE SANDS
 TABLE VII.

GEODETIC COORDINATES
 32°40.043 LAT DEG
 106°37.033 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	AIR DEWPOINT CENTIGRADE	RFL.HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES(T)	SPEED KNOTS
850.0	4925.	31.4	15.4	38.	14.6	•2
800.0	6697.	26.0	13.4	46.	14.6	•6
750.0	8546.	20.2	10.6	54.	242.1	5.3
700.0	10482.	14.0	7.1	63.	248.0	13.9
650.0	12522.	10.0	•3	51.	240.5	8.3
600.0	14688.	5.0	-3.9	52.	207.7	9.7
550.0	16999.	•2	-9.8	47.	250.4	9.1
500.0	19484.	-5.0	-12.6	55.	272.8	7.3
450.0	22180.	-9.6	-15.5	62.	254.3	13.6
400.0	25138.	-14.7	-20.7	60.	231.9	12.6
350.0	28416.	-21.5	-29.3	49.	222.3	18.1
300.0	32087.	-29.4	-39.6	36.	221.5	24.2
250.0	36272.	-38.9	-49.5	31.	228.2	26.7
200.0	41159.	-50.6	-50.6	252.4	29.5	
175.0	43975.	-56.8	-56.8	238.6	29.2	
150.0	47127.	-63.9	-63.9	248.4	26.5	
125.0	50719.	-72.4	-72.4	236.5	23.5	

STATION ALTITUDE 4940.00 FEET MSL
25 AUG. 77 1450 HRS MDT
ASCENSION NO. 184

SIGNIFICANT LEVEL DATA
2370040184
STALLION
TABLE VIII.

GEODETIC COORDINATES
33.81920 LAT DEG
106.66501 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE			REL. HUM. PERCENT
		AIR DEGREES	DEPOINT CENTIGRANE	DEGREES	
648.3	4940.0	32.0	12.8	31.0	
821.8	5871.8	27.0	6.9	28.0	
721.3	9578.4	15.6	4.9	49.0	
717.1	9741.0	15.3	2.1	41.0	
700.0	10409.9	13.4	1.1	43.0	
648.8	12486.3	7.8	-2.5	48.0	
620.8	13675.1	5.9	-10.3	30.0	
600.3	14574.3	4.9	-17.4	18.0	
529.3	17885.9	-3.5	-21.1	24.0	
521.3	18280.7	-2.9	-25.1	16.0	
500.0	19359.9	-4.5	-27.9	14.0	
469.3	20980.6	-8.9	-30.7	15.0	
446.8	22223.3	-10.3	-30.6	17.0	
400.0	24976.9	-17.3	-30.7	30.0	
346.8	28441.0	-22.9	-39.1	21.0	
300.0	31862.7	-31.0	-46.9	19.0	
280.3	33427.4	-34.6	-48.7	22.0	
250.0	36007.2	-41.0			
200.0	40843.9	-52.7			
150.0	46730.6	-66.1			
127.8	49853.4	-72.7			
111.5	52438.4	-77.5			
108.3	52991.4	-71.7			
103.8	53809.1	-71.7			

STATION ALTITUDE 4940.00 FEET MSL
 25 AUG. 77 1450 HRS MDT
 ASCENSION NO. 134

UPPER AIR DATA
 2370040184
 STALLION
 TABLE IX.

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND SPEED KNOTS	ATA SPEED KNOTS	INDEX OF REFRACTION
4940.0	848.3	32.0	12.8	31.0	962.1	682.8	210.0	7.0	1.000275		
5000.0	846.6	31.7	12.4	30.8	961.3	682.4	210.5	7.1	1.000273		
5500.0	832.3	29.0	9.3	29.2	954.5	679.0	213.8	8.0	1.000261		
6000.0	818.1	26.6	7.0	28.7	946.4	676.1	216.5	8.9	1.000253		
6500.0	803.8	25.1	7.0	31.6	934.6	674.4	218.6	9.8	1.000251		
7000.0	789.8	23.5	6.9	34.4	923.0	672.6	220.4	10.7	1.000249		
7500.0	776.0	22.0	6.7	37.2	911.6	670.9	221.1	10.5	1.000246		
8000.0	762.5	20.5	6.4	40.1	900.4	669.1	221.0	9.3	1.000243		
8500.0	749.2	18.9	6.0	42.9	889.4	667.4	215.2	9.5	1.000240		
9000.0	736.1	17.4	5.6	45.7	878.6	665.6	207.9	10.5	1.000237		
9500.0	723.3	15.8	5.0	48.6	867.9	663.8	213.4	11.1	1.000233		
10000.0	710.4	14.6	4.7	41.8	857.0	662.0	219.8	11.6	1.000223		
10500.0	697.7	13.2	4.9	43.2	845.9	660.4	228.7	11.9	1.000219		
11000.0	685.1	11.8	4.1	44.4	834.6	658.8	233.8	12.9	1.000215		
11500.0	672.6	10.5	4.8	45.6	823.5	657.1	237.1	14.1	1.000211		
12000.0	660.4	9.1	-1.6	46.8	812.6	655.5	247.2	15.5	1.000207		
12500.0	648.5	7.8	-2.6	47.8	801.8	653.9	255.1	17.3	1.000203		
13000.0	636.5	7.0	-5.6	40.2	789.7	652.8	258.9	18.6	1.000195		
13500.0	624.8	6.2	-9.0	32.7	777.8	651.7	262.2	19.9	1.000188		
14000.0	613.3	5.5	-12.6	25.7	765.6	650.8	259.1	19.9	1.000182		
14500.0	602.0	5.0	-16.7	19.0	753.2	650.0	253.7	19.5	1.000176		
15000.0	590.7	3.8	-17.8	18.8	742.2	648.7	250.3	19.5	1.000173		
15500.0	579.5	2.6	-18.3	19.7	731.6	647.2	249.2	19.6	1.000170		
16000.0	568.6	1.3	-18.8	20.6	721.2	645.7	249.6	20.0	1.000168		
16500.0	557.9	0.0	-19.4	21.5	710.9	644.2	254.0	21.2	1.000165		
17000.0	547.4	-1.3	-20.0	22.4	700.8	642.7	257.5	22.0	1.000162		
17500.0	537.1	-2.5	-20.6	23.3	690.8	641.2	260.1	21.1	1.000160		
18000.0	527.0	-3.3	-22.1	21.7	679.9	640.2	262.7	19.6	1.000157		
18500.0	516.9	-3.2	-25.7	15.6	666.7	640.2	265.2	16.0	1.000152		
19000.0	507.0	-4.0	-27.0	14.7	655.8	639.3	268.4	12.6	1.000150		

STATION ALTITUDE 4940.00 FEET MSL
 25 AUG. 77 1450 HRS MDT
 ASCENSION NO. 184

UPPER AIR DATA
 2370040184
 STALLION
 TABLE IX. (CONT)

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES TN	ATA SPEED KNOTS	INDEX OF REFRACTION
19500.0	497.3	-4.9	-28.1	14.1	645.4	638.2	267.8	10.7	1.000147
20000.0	487.6	-6.2	-29.0	14.4	636.2	636.6	266.9	8.8	1.000145
20500.0	478.2	-7.6	-29.9	14.7	627.1	635.0	260.2	10.8	1.000142
21000.0	468.9	-8.9	-30.7	15.0	616.0	633.4	255.3	13.0	1.000140
21500.0	459.8	-9.5	-30.7	15.8	607.2	632.7	249.4	17.0	1.000138
22000.0	450.8	-10.0	-30.6	16.6	596.6	632.0	246.2	20.6	1.000135
22500.0	441.9	-11.0	-30.4	18.3	586.9	630.9	245.2	23.3	1.000133
23000.0	433.1	-12.3	-30.2	20.7	578.1	629.4	244.5	24.4	1.000132
23500.0	424.5	-13.5	-30.2	23.0	569.3	627.8	244.1	24.1	1.000130
24000.0	416.0	-14.8	-30.2	25.4	560.6	626.3	243.5	23.2	1.000128
24500.0	407.7	-16.1	-30.4	27.7	552.3	624.8	242.8	22.0	1.000126
25000.0	399.6	-17.3	-30.7	29.9	544.0	623.2	241.3	22.1	1.000124
25500.0	391.5	-18.1	-31.9	28.6	534.6	622.2	239.8	22.6	1.000122
26000.0	383.5	-19.0	-33.1	27.3	525.4	621.2	236.3	23.4	1.000119
26500.0	375.7	-19.8	-34.3	26.0	516.3	620.2	232.8	24.3	1.000117
27000.0	368.0	-20.6	-35.5	24.7	507.4	619.2	232.4	26.5	1.000115
27500.0	360.5	-21.4	-36.7	23.4	498.7	618.2	232.3	28.9	1.000113
28000.0	353.2	-22.2	-38.0	22.1	490.1	617.2	233.2	31.0	1.000111
28500.0	345.9	-23.0	-39.2	21.0	481.7	616.2	234.1	33.1	1.000109
29000.0	338.7	-24.2	-40.4	20.7	473.9	614.7	236.1	33.6	1.000107
29500.0	331.6	-25.4	-41.5	20.4	466.2	613.2	238.2	34.1	1.000105
30000.0	324.6	-26.6	-42.7	20.1	458.6	611.8	239.6	34.4	1.000103
30500.0	317.8	-27.8	-43.8	19.8	451.2	610.3	240.9	34.6	1.000101
31000.0	311.2	-29.0	-44.9	19.5	443.9	608.8	240.7	34.0	1.000100
31500.0	304.6	-30.1	-46.1	19.2	436.7	607.3	240.5	33.5	1.000098
32000.0	298.2	-31.3	-47.1	19.3	429.5	605.9	239.9	33.9	1.000096
32500.0	291.8	-32.5	-47.6	20.2	422.3	604.4	239.2	34.5	1.000095
33000.0	285.5	-33.6	-48.2	21.2	415.2	603.0	238.3	35.9	1.000093
33500.0	279.4	-34.8	-49.1	21.4**	408.3	601.5	237.6	36.8	1.000091
34000.0	273.3	-36.0	-52.1	17.1**	401.4	599.9	237.3	36.6	1.000090

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4940.00 FEET MSL
25 AUG. 77 1450 HRS MDT
ASCENSION NO. 184

UPPER AIR DATA
2370040184
STALLION
TABLE IX. (CONT)

GEODETIC COORDINATES
33.81920 LAT DEG
106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	ATA SPEED KNOTS	INDEX OF REFRACTION
34500.0	267.3	-37.3	12.9**	394.7	598.4	237.1	36.3	1.0000088
35000.0	261.4	-38.5	8.6**	388.1	596.8	237.3	36.1	1.0000087
35500.0	255.7	-39.7	4.3**	381.6	595.2	238.3	37.3	1.0000085
36000.0	250.1	-41.0	.1**	375.2	593.6	239.7	39.5	1.0000084
36500.0	244.4	-42.2		368.6	592.1	240.2	40.9	1.0000082
37000.0	238.8	-43.4		362.1	590.5	240.6	41.9	1.0000081
37500.0	233.4	-44.6		355.7	588.9	240.7	42.4	1.0000079
38000.0	228.0	-45.8		349.5	587.4	240.7	42.4	1.0000078
38500.0	222.8	-47.0		343.3	585.8	241.5	42.7	1.0000076
39000.0	217.8	-48.2		337.3	584.3	243.5	43.6	1.0000075
39500.0	212.8	-49.4		331.4	582.7	245.4	44.6	1.0000074
40000.0	207.9	-50.7		325.6	581.1	246.6	46.2	1.0000073
40500.0	203.2	-51.9		319.9	579.5	247.7	47.9	1.0000071
41000.0	198.5	-53.1		314.2	578.0	247.9	49.1	1.0000070
41500.0	193.7	-54.2		308.2	576.5	247.7	50.0	1.0000069
42000.0	189.0	-55.3		302.3	575.0	247.8	50.7	1.0000067
42500.0	184.5	-56.5		296.5	573.5	249.0	50.2	1.0000066
43000.0	180.0	-57.6		290.9	572.0	250.2	49.8	1.0000065
43500.0	175.7	-58.7		285.4	570.4	251.7	48.5	1.0000064
44000.0	171.4	-59.9		280.0	568.9	253.3	47.1	1.0000062
44500.0	167.3	-61.0		274.7	567.4	255.1	45.7	1.0000061
45000.0	163.2	-62.2		269.5	565.9	255.8	44.6	1.0000060
45500.0	159.3	-63.3		264.4	564.4	256.5	43.6	1.0000059
46000.0	155.5	-64.4		259.5	562.8	257.2	42.6	1.0000058
46500.0	151.7	-65.6		254.6	561.3	254.1	39.4	1.0000057
47000.0	147.9	-66.7		249.6	559.8	249.5	35.9	1.0000056
47500.0	144.2	-67.7		244.5	558.4	244.0	32.7	1.0000054
48000.0	140.5	-68.8		239.6	556.9	236.5	31.4	1.0000053
48500.0	137.0	-69.8		234.7	555.5	228.3	31.4	1.0000052
49000.0	133.5	-70.9		230.0	554.0	220.2	32.0	1.0000051

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4940.00 FEET MSL
 25 AUG. 77 1450 HRS MDT
 ASCENSION NO. 184

UPPER AIR DATA
 2370040184
 STALLION
 TABLE IX. (CONT)

GEODETIC COORDINATES
 33°81'920 LAT DEG
 106°66'501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREESES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPD OF SOUND KNOTS	WIND DIRECTION DEGREES TN	ATA SPEED KNOTS	INDEX OF REFRACTION
49500.0	130.1	-72.0		225.3	552.6	222.4	34.0	1.000050
50000.0	126.8	-73.0		220.7	551.2	224.6	36.0	1.000049
50500.0	123.5	-73.9		215.9	549.9	227.4	36.4	1.000048
51000.0	120.3	-74.8		211.3	548.6	232.2	34.4	1.000047
51500.0	117.2	-75.8		206.6	547.3	236.2	32.2	1.000046
52000.0	114.1	-76.7		202.3	546.1	238.4	29.2	1.000045
52500.0	111.1	-76.9		197.2	545.8			1.000044
53000.0	108.3	-71.7		187.2	552.9			1.000042
53500.0	105.5	-71.7		182.4	552.9			1.000041

STATION ALTITUDE 4940.00 FEET MSL
25 AUG. 77 1450 HRS MDT
ASCENSION NO. 184

MANDATORY LEVELS
2370040184
STALLION
TABLE X.

GEODETIC COORDINATES
33°.81920 LAT DEG
106°.66501 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	AIR DEWPONT CENTIGRADE	RFL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(T)	SPEED KNOTS
800.0	6647	24.7	7.0	32.	219.2	10.1
750.0	8485	19.0	6.1	43.	215.4	9.5
700.0	10411	13.4	1.1	43.	227.2	11.8
650.0	12439	7.9	-2.4	48.	254.6	17.1
600.0	14592	4.9	-17.4	18.	252.6	19.5
550.0	16895	-0.9	-19.8	22.	257.1	22.1
500.0	19371	-4.5	-27.9	14.	268.0	11.1
450.0	22058	-10.1	-30.6	17.	246.0	21.1
400.0	24996	-17.3	-30.7	30.	241.2	22.1
350.0	28248	-22.5	-38.5	22.	233.7	32.2
300.0	31900	-31.0	-46.9	19.	240.0	33.9
250.0	36056	-41.0			240.0	40.0
200.0	40909	-52.7			247.9	49.1
175.0	43698	-56.9			252.6	47.7
150.0	46818	-66.1			250.3	36.4
125.0	50380	-73.5			227.5	36.4

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.